

Division of Materials and Tests

TDOT Certification: Concrete Technician Certification Program

Course Title: Concrete Field Testing Technician Course – Level 1

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Who is required to have this certification?

- A certified Departmental Concrete Field Testing Technician shall be onsite during the placement of any concrete for TDOT projects to perform acceptance tests.
- The contractor and/or ready mix producer must have a certified Concrete Field Testing Technician to perform quality control tests.

Course Description

The course is an overview of test methods for the certified technician to perform proper testing procedures for concrete delivered to a TDOT project. This course outlines the seven basic field tests on freshly-mixed concrete as well as calculations necessary to report acceptance data. The course covers general information about self-consolidating concrete (SCC) as well as the applicable field test methods for SCC. The course also outlines all pertinent TDOT Forms and applicable Standard Operating Procedures for field testing technicians.

Scope of Course

The course covers all applicable forms, appropriate calculations, and the following AASHTO and ASTM Test Methods:

- AASHTO T309/ASTM C1064 - Temperature of Freshly-Mixed Portland Cement Concrete
- AASHTO T141/ASTM C172 - Sampling Freshly-Mixed Concrete
- AASHTO T119/ASTM C143 - Slump of Hydraulic Cement Concrete
- AASHTO T121/ASTM C138 - Unit Weight, Yield, and Air Content (Gravimetric) of Concrete
- AASHTO T153/ASTM C231 - Air Content of Freshly-Mixed Concrete by the Pressure Method
- AASHTO T196/ASTM C173 - Air Content of Freshly-Mixed Concrete by the Volumetric Method
- AASHTO T23/ASTM C31 - Making and Curing Concrete Test Specimens in the Field
- ASTM C1611/1621/1758 – Self Consolidating Concrete

Prerequisites

- Minimum of six (6) months with the Department (less requires explanation from immediate supervisor)
- Basic understanding of concrete testing, placement, and inspection
- Familiarity with applicable TDOT Standard Specifications, Supplemental Specifications, Special Provisions and Standard Operating Procedures
- Supervisor's recommendation form for all TDOT Employees
- Capable of performing basic mathematic operations (for example; addition, subtraction, multiplication, division, percentages, etc.)

Certification Requirements

TDOT will grant a 5 year certification to those applicants who meet the following requirements:

- 1) A passing grade on the two-hour written examination. The exam is OPEN BOOK and a minimum score of 70% is required.
- 2) A passing grade on the performance examination which takes place immediately after the written examination. The performance examination requires that the student demonstrate the knowledge and ability to perform each of the required standards. Evaluators may ask questions during the performance of the tests in order to determine more accurately the students' knowledge of the standards. The student is evaluated on his ability to correctly perform and describe all of the required procedures for each standard. The exam is CLOSED BOOK.
- 3) Recertification is necessary every five (5) years and requires that the technician attend the class and successfully complete the written examination.

On-line Study Materials

- [Concrete Field Testing Technician Study Guide](#)
- [How to Register](#)

NOTICES:

- Cheating on any level **WILL NOT BE TOLERATED** and will result in immediate expulsion from the course and a notification of supervisors and directors.
- The use of cell phone calculators **WILL NOT** be permitted during exam.
- A Valid **PHOTO ID IS REQUIRED** upon check-in